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(71) Applicant: **HITACHI LTD HITACHI MAXELL LTD**

(72) Inventor: **MIYAMOTO MAKOTO**  
**HIROTSUNE AKEMI**  
**TERAO MOTOYASU**  
**FUKUI YUKIO**  
**TOKUJIYUKU NOBUHIRO**  
**MIYAUCHI YASUSHI**  
**ANDO KEIKICHI**  
**NISHIDA TETSUYA**  
**MORIYA KOICHI**

(54) **INFORMATION RECORDING MEDIUM AND  
INFORMATION RECORDING AND  
REPRODUCING SYSTEM**

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(57) Abstract:

PROBLEM TO BE SOLVED: To obtain an information recording medium having an information recording thin film as a recording layer in which the configuration of atoms is changed by irradiation of energy beams of form recording marks, and to enable rewriting in many times in this medium.

SOLUTION: A first reflection layer formed nearer to a recording layer has a compsn. essentially comprising Al, Cu, Ag, Au, Pt, Pd, and the sum of the compsn. ratios of these elements is controlled to  $\approx 65\%$  and  $\leq 95\%$ . The second reflection layer consists of an Al alloy or the like having a larger Al content than the first layer. Thereby, the obtd. medium has good recording sensitivity, good reproducing signal quality, enables repetition of recording and overwriting, and is compatible with a reproducing-only optical disk for reproducing.

紫外線硬化樹脂保護膜
第2反射層
第1反射層
中間層
記録層
第1保護層
ポリカーボネート基板

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Inventor(s):

MIYAMOTO MAKOTO; HIROTSUNE AKEMI; TERAU MOTOYASU; FUKUI YUKIO;  
TOKUJIYUKU NOBUHIRO; MIYAUCHI YASUSHI; ANDO KEIKICHI; NISHIDA  
TETSUYA; MORIYA KOICHI

Applicant(s):

HITACHI LTD;; HITACHI MAXELL LTD

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IPC

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EC

Classification:

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**Abstract**

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## 【符号の説明】

1: 情報記録媒体 2: モーター 3: 光ヘッド 4: プリアンプ回路  
 6: 記録波形発生回路 7: レーザ駆動回路 8: 8-16変調器  
 9: L/Gサーボ回路 10: 8-16復調器。 1  
 1, 11': ポリカーボネイト基板  
 12, 12': 第1保護層 13, 13': 第1保護層  
 14, 14': 記録膜 15, 15': 中間層  
 16, 16': 第1反射層 17, 17': 第2反射層  
 18, 18': 保護コーティング層 19: 接着剤層  
 T: ウインド幅 (Tw) Pr: 低パワーレベル

Pm: 中間パワーレベル

Ph: 高パワーレベル Tc: 記録パルスの最後に下げる時間

23: 凹凸状に記録ビットが形成されている基板

24, 24': 超解像読み出し膜 25: 記録ビット

26, 26': 高感度超解像読み出し層 27: 反射層 28: 基板

29: リードインエリア 30: 記録領域 31: マスク

32: 高感度超解像読み出し層材料

33: 基板上に部分的に製膜された高感度超解像読み出し層 34: 反射層材料

35: 基板上に一部が直接製膜された反射層。

【図1】

【図3】

図1

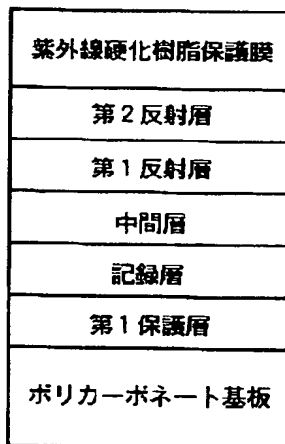
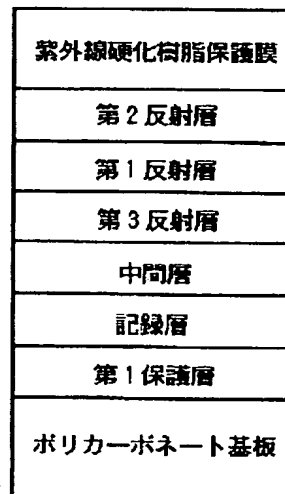


図3



【図5】

【図6】

【図9】

図5

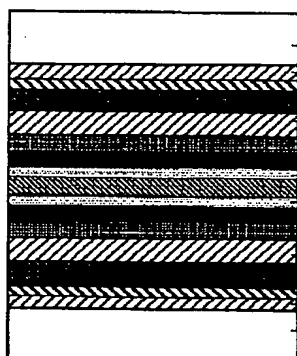


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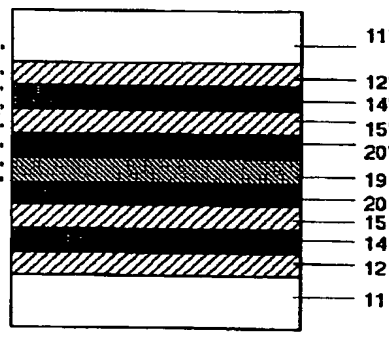
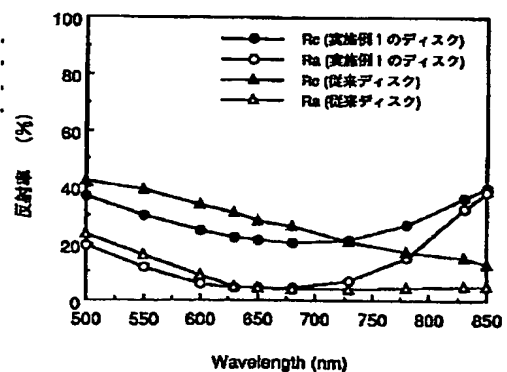
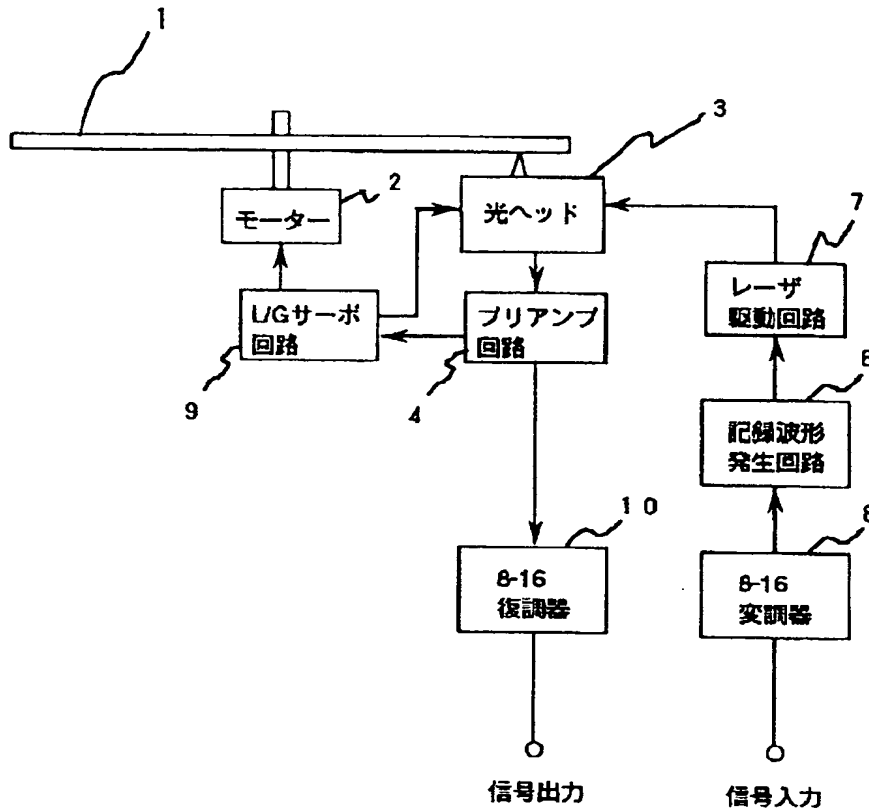


図9



【図2】

図2



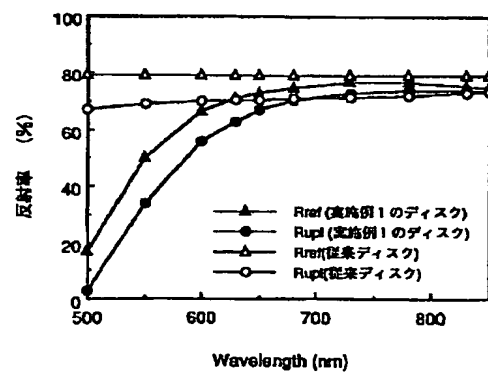
【図4】

図4

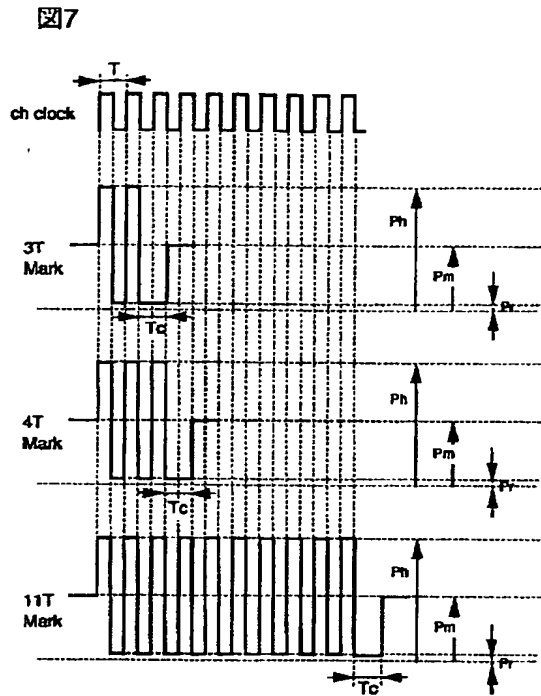
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中間層
記録層
第1保護層
ポリカーボネート基板

【図10】

図10

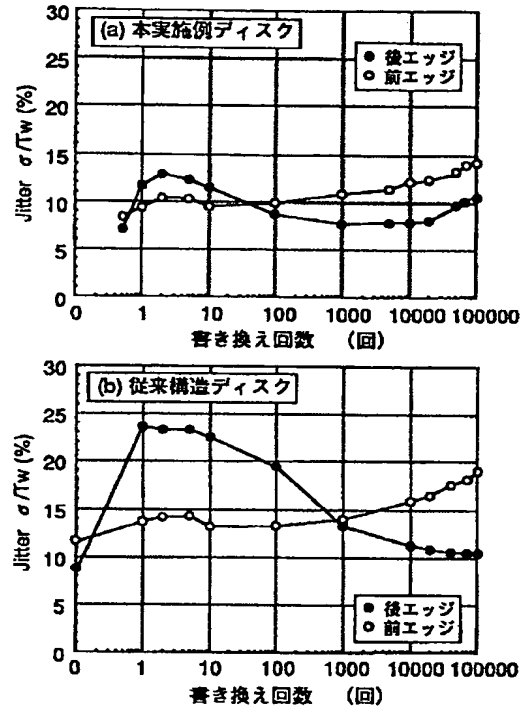


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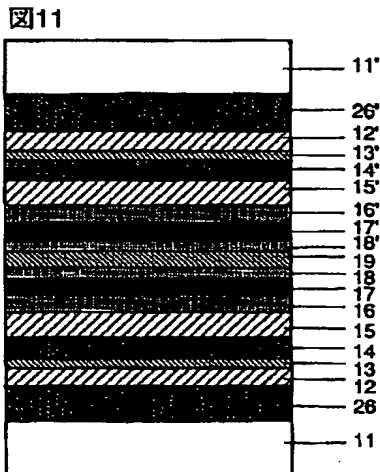


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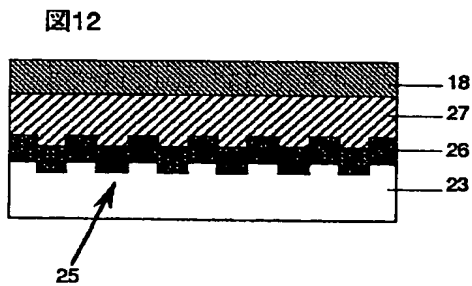
図8



【図11】

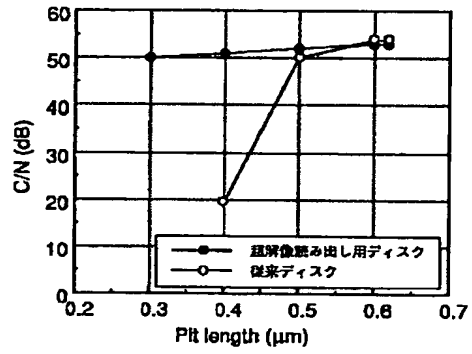


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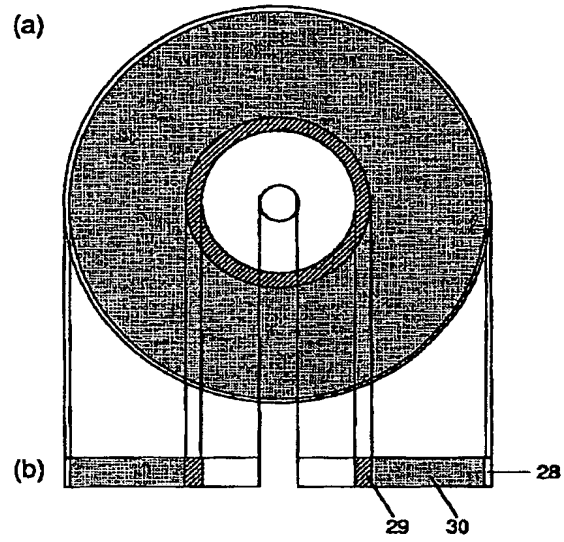
【図13】

図13



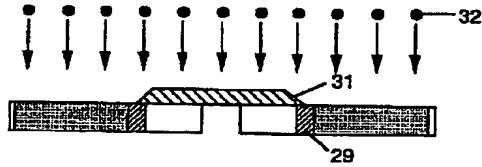
【図14】

図14

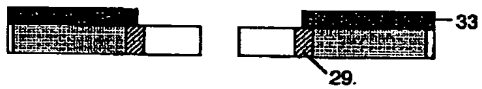


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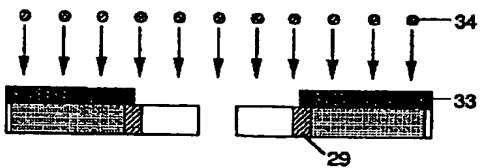
図15 (a)



(b)



(c)



(d)

